IN THE SPECIFICATION

Please replace the paragraph starting at page 1, line 17 with the following:

The first problem, increased heating resulting from a decrease in the cross-sectional area of a conductor in an integrated circuit, can cause the integrated circuit to fail. Despite advances in devices, such as heat sinks which are designed to remove heat from an integrated circuit, it is still important to reduce the heat generated internal to the integrated circuit. Fabricating the conductors in an integrated circuit from a metal, such as copper, which has a higher conductivity than the industry standard aluminum conductor, is one way to eliminate the heat generated in the conductor. Unfortunately, the use of copper as a conductor in an integrated circuit generates another problem. Copper diffuses into the materials that make up the integrated circuit, and the diffused copper alters the electrical properties of those materials.

Please replace the paragraph starting at page 2, line 1 with the following:

The second problem, increased capacitance between the conductors, decreases the rate at which information can be transmitted along the conductors. One approach to solving this problem is to use an insulator having a smaller dielectric constant than the industry standard silicon dioxide, in order to decrease the capacitance between the conductors. Polymers have a smaller dielectric constant than silicon dioxide, but the use of polymers as insulators in integrated circuits creates another problem. It is well known that both gold and copper are fast diffusers in silicon, poisoning devices by degrading minority carrier lifetime. It is also known that copper especially, diffuses rapidly through silicon oxide. It is also well known that copper will react with organic acids like polyimide acid, which is used as a precursor for the formation of many polyimide films, forming CuO which degrades the resulting polymer. Therefore, a number of barrier materials have been studied to prevent the penetration of copper into oxide or the reaction of copper with polymeric acid precursors. Among the more successful are tantalum and tantalum nitrid . It has also been found that if polyimide is formed not from a an acid but an ester based starting material, that the reaction is reduced or eliminated, if the material is pure

enough. Therefore, if the polyimide is formed from ~~a~~ an ester based precursor the intermediate layer between the copper and the polymer acts mainly as ~~a~~ an adhesion layer assuring good adhesion between the resulting copper film and the polymer. When a polymer is used in combination with aluminum conductors, the aluminum does not affect the dielectric properties of the polymer; but the aluminum conductors suffer from the previously described resistance-heating problem. To avoid this problem, the thickness of the aluminum is increased. Unfortunately, increasing the thickness of the aluminum increases the capacitance between the conductors. Further, ~~Aluminum~~ aluminum has a high coefficient of thermal expansion which can result in failures on the integrated circuit. For these and other reasons there is a need for the present invention.

Please replace the paragraph starting at page 4, line 5 with the following:

In general, the present invention includes a connector conductor which is formed by a method comprising several alternative processes. In one embodiment, an insulator is deposited over a planarized surface, and a trench is etched in the insulator. A barrier layer is deposited on the insulator, and a seed layer is deposited on the barrier layer. The barrier layer and the seed layer are removed from selected areas of the insulator, leaving the seed area, and a conductor is deposited on the seed area by a selective deposition process. Many different embodiments of the present invention are described below. For example, ~~In~~ in one other embodiment, the barrier layer is deposited on the insulator by physical vapor-deposition.

Please replace the paragraph starting at page 4, line 14 with the following:

In other embodiments, the trench is etched to a depth about equal to the depth of the insulator. The barrier layer deposited on the ~~Polyimide~~ polyimide formed from ~~a~~ an ester based monomer layer is selected from the group consisting of titanium, zirconium, and hafnium. The conductor may be selected from the group consisting of gold, silver, and copper, which may be deposited on the seed area by electroless plating. In yet other embodiments, the insulator

deposited over the planarized surface is a polymer, the seed layer is copper and the barrier layer is tantalum nitride, and a layer of tantalum nitride is deposited above the conductor.

Please replace the paragraph starting at page 4, line 22 with the following:

In another embodiment the barrier layer is deposited on ~~a~~ an oxide layer and is selected from the group consisting of titanium, zirconium and hafnium; the conductor is aluminum or aluminum copper and the seed layer is aluminum, aluminum copper or copper.